



# TEST REPORT

Test Report # 19W-007455 Date of Report Issue: May 29, 2019  
Date of Sample Received: May 24, 2019 Pages: Page 1 of 24

## CLIENT INFORMATION:

Company: Spector & Co.  
Address: -



## SAMPLE INFORMATION:

Description: 3 IN 1 PEN/STYLUS /HIGHLIGHTER  
Assortment: XXX  
Model/style No.: I146  
Style name: NORI  
Factory/Supplier: USS061  
Quantity Submitted: red,blue,pink: 3pcs per color, others: 2pcs per color  
Country of Distribution: Canada,United States  
Country of Origin: China  
Testing Period: 05/27/2019-05/29/2019

## OVERALL RESULT:

**PASS with information**

Refer to page 2 for test result summary and appropriate notes.

HANGZHOU ASIAINSPECTION  
TESTING TECHNOLOGY CO., LTD

Kevin Lee  
Technical Manager





# TEST REPORT

Test Report # 19W-007455 Date of Report Issue: May 29, 2019  
 Date of Sample Received: May 24, 2019 Pages: Page 2 of 24

## TEST RESULTS SUMMARY:

At the request of the client, the following tests were conducted:

CONCLUSION	TEST(S) CONDUCTED
PASS	California Proposition 65, Total Lead in Paints and Surface Coatings
PASS	California Proposition 65, Total Lead in Substrate Materials
PASS	Canadian Surface Coating Materials Regulations SOR/2016-193, Total Lead and Mercury in Paints and Surface Coatings
PASS	Canadian Consumer Products Containing Lead Regulations (SOR/2018-83), Total Lead Content
PASS	California Proposition 65, Total Cadmium in Paints and Surface Coatings
PASS	California Proposition 65, Total Cadmium in Substrate Materials
Refer to Detailed Results	Client's Requirement, Total Tungsten content
PASS	California Proposition 65, Phthalates (DBP, BBP, DEHP, DINP, DIDP, DnHP)
PASS	CPSC 16 CFR 1307 Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates(DBP, BBP, DEHP, DINP, DHEXP / DnHP, DCHP, DIBP, DPENP)
PASS	Client's Requirement, Phthalates content





**DETAILED RESULTS:**

**California Proposition 65, Total Lead in Paints and Surface Coatings**

Test Method: CPSC-CH-E1003-09.1

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1	12	---	---	---	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Lead (Pb)	22	ND	---	---	---	<b>90</b>
<b>Conclusion</b>	PASS	PASS	---	---	---	

*Note:*

mg/kg =Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 15 mg/kg)

*Remark:*

The specification is quoted from client's requirement.





DETAILED RESULTS:

California Proposition 65, Total Lead in Substrate Materials

Test Method: CPSC-CH-E1001-08.3 (Metal), CPSC-CH-E1002-08.3 (Non-Metal)

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	2+3+6	4+15+18	5	7	8+11+13	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Lead (Pb)	ND	ND	ND	ND	ND	100
<b>Conclusion</b>	PASS	PASS	PASS	PASS	PASS	

Specimen No.	9	10	14+16+17	19+20+22	21+24+27	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Lead (Pb)	ND	ND	ND	ND	ND	100
<b>Conclusion</b>	PASS	PASS	PASS	PASS	PASS	

Specimen No.	23+25+26	28+29+31	30	---	---	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Lead (Pb)	ND	ND	ND	---	---	100
<b>Conclusion</b>	PASS	PASS	PASS	---	---	

Note:

mg/kg =Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit =15 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

Remark:

The specification is quoted from client’s requirement.



**DETAILED RESULTS:****Canadian Surface Coating Materials Regulations SOR/2016-193, Total Lead and Mercury in Paints and Surface Coatings**

Test Method: ASTM F963-17 Clause 8.3.1

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1	12	---	---	---	Total Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Lead (Pb)	22	ND	---	---	---	<b>90</b>
Total Mercury (Hg)	ND	ND	---	---	---	<b>10</b>
<b>Conclusion</b>	PASS	PASS	---	---	---	

*Note:*

mg/kg=Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit: Pb=15 mg/kg; Hg = 10 mg/kg)



**DETAILED RESULTS:****Canadian Consumer Products Containing Lead Regulations (SOR/2018-83), Total Lead Content**

Test Method: ASTM F963-17 Clause 8.3.1

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	2+3+6	4+15+18	5	7	8+11+13	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Lead (Pb)	ND	ND	ND	ND	ND	<b>90</b>
<b>Conclusion</b>	PASS	PASS	PASS	PASS	PASS	

Specimen No.	9	10	14+16+17	19+20+22	21+24+27	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Lead (Pb)	ND	ND	ND	ND	ND	<b>90</b>
<b>Conclusion</b>	PASS	PASS	PASS	PASS	PASS	

Specimen No.	23+25+26	28+29+31	30	---	---	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Lead (Pb)	ND	ND	ND	---	---	<b>90</b>
<b>Conclusion</b>	PASS	PASS	PASS	---	---	

*Note:*

mg/kg=Milligrams per kilogram)

LT = Less than

ND = Not detected (Reporting Limit = 15 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.





**DETAILED RESULTS:**

**California Proposition 65, Total Cadmium in Paints and Surface Coatings**

Test Method: ASTM F963-17 Clause 8.3.1

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	1	12	---	---	---	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Cadmium (Cd)	ND	ND	---	---	---	<b>75</b>
<b>Conclusion</b>	PASS	PASS	---	---	---	

*Note:*

mg/kg =Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 15 mg/kg)

*Remark:*

The specification is quoted from client’s requirement.





**DETAILED RESULTS:**

**California Proposition 65, Total Cadmium in Substrate Materials**

Test Method: ASTM F963-17 Clause 8.3.1

Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	2+3+6	4+15+18	5	7	8+11+13	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Cadmium (Cd)	ND	ND	ND	ND	ND	<b>75</b>
<b>Conclusion</b>	PASS	PASS	PASS	PASS	PASS	

Specimen No.	9	10	14+16+17	19+20+22	21+24+27	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Cadmium (Cd)	ND	ND	ND	ND	ND	<b>75</b>
<b>Conclusion</b>	PASS	PASS	PASS	PASS	PASS	

Specimen No.	23+25+26	28+29+31	30	---	---	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Cadmium (Cd)	ND	ND	ND	---	---	<b>75</b>
<b>Conclusion</b>	PASS	PASS	PASS	---	---	

*Note:*

mg/kg =Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 15 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

*Remark:*

The specification is quoted from client’s requirement.







**DETAILED RESULTS:**

**Client's Requirement, Total Tungsten content**

Test Method: US EPA 3052:1996 & US EPA 6010D:2014  
Analytical Method: Inductively Coupled Plasma-Optical Emission Spectrometry

Specimen No.	9	10	---	---	---	Limit (mg/kg)
Test Item	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Total Tungsten (W)	168	5410	---	---	---	
<b>Conclusion</b>	Information only	Information only	---	---	---	

*Note:*  
mg/kg = Milligrams per kilogram  
LT = Less than  
ND = Not detected (Reporting Limit = 15 mg/kg)



**DETAILED RESULTS:****California Proposition 65, Phthalates (DBP, BBP, DEHP, DINP, DIDP, DnHP)**

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		1	2+3+6	4+15+18	5	Limit ( mg/kg)
Test Item	CAS No.	Result ( mg/kg)	Result ( mg/kg)	Result ( mg/kg)	Result ( mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	289	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	ND	1000
Di-n-hexyl phthalate (DnHP)	84-75-3	ND	ND	ND	ND	1000
<b>Conclusion</b>		PASS	PASS	PASS	PASS	

*Note:*

mg/kg (Milligrams per kilogram) = 0.0001 % m/m (Percent by mass)

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

*Remark:*

The specification is quoted from client's requirement.



**DETAILED RESULTS:****California Proposition 65, Phthalates (DBP, BBP, DEHP, DINP, DIDP, DnHP)**

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		7	8+11+13	12	14+16+17	Limit ( mg/kg)
Test Item	CAS No.	Result ( mg/kg)	Result ( mg/kg)	Result ( mg/kg)	Result ( mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	ND	1000
Di-n-hexyl phthalate (DnHP)	84-75-3	ND	ND	ND	ND	1000
<b>Conclusion</b>		PASS	PASS	PASS	PASS	

*Note:*

mg/kg (Milligrams per kilogram) = 0.0001 % m/m (Percent by mass)

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

*Remark:*

The specification is quoted from client's requirement.



**DETAILED RESULTS:****California Proposition 65, Phthalates (DBP, BBP, DEHP, DINP, DIDP, DnHP)**

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		19+20+22	21+24+27	23+25+26	28+29+31	Limit ( mg/kg)
Test Item	CAS No.	Result ( mg/kg)	Result ( mg/kg)	Result ( mg/kg)	Result ( mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	ND	1000
Di-n-hexyl phthalate (DnHP)	84-75-3	ND	ND	ND	ND	1000
<b>Conclusion</b>		PASS	PASS	PASS	PASS	

*Note:*

mg/kg (Milligrams per kilogram) = 0.0001 % m/m (Percent by mass)

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

*Remark:*

The specification is quoted from client's requirement.



**DETAILED RESULTS:****California Proposition 65, Phthalates (DBP, BBP, DEHP, DINP, DIDP, DnHP)**

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.	30	---	---	---	Limit ( mg/kg)
Test Item	CAS No.	Result ( mg/kg)	Result ( mg/kg)	Result ( mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	---	---	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	---	---	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	---	---	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	---	---	1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	---	---	1000
Di-n-hexyl phthalate (DnHP)	84-75-3	ND	---	---	1000
<b>Conclusion</b>	PASS	---	---	---	

*Note:*

mg/kg (Milligrams per kilogram) = 0.0001 % m/m (Percent by mass)

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

*Remark:*

The specification is quoted from client's requirement.



**DETAILED RESULTS:****CPSC 16 CFR 1307 Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates (DBP, BBP, DEHP, DINP, DHEXP / DnHP, DCHP, DIBP, DPENP)**

Test Method: CPSC-CH-C1001-09.4(Modified), In-House Method

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		1	2+3+6	4+15+18	5	Limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	289	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	1000
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND	ND	ND	ND	1000
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	ND	ND	ND	1000
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	ND	ND	1000
Di-n-pentyl phthalate (DPENP)	131-18-0	ND	ND	ND	ND	1000
<b>Conclusion</b>		PASS	PASS	PASS	PASS	

**Note:**

mg/kg = Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.



**DETAILED RESULTS:****CPSC 16 CFR 1307 Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates (DBP, BBP, DEHP, DINP, DHEXP / DnHP, DCHP, DIBP, DPENP)**

Test Method: CPSC-CH-C1001-09.4(Modified), In-House Method

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		7	8+11+13	12	14+16+17	Limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	1000
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND	ND	ND	ND	1000
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	ND	ND	ND	1000
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	ND	ND	1000
Di-n-pentyl phthalate (DPENP)	131-18-0	ND	ND	ND	ND	1000
<b>Conclusion</b>		PASS	PASS	PASS	PASS	

**Note:**

mg/kg = Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.



**DETAILED RESULTS:****CPSC 16 CFR 1307 Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates (DBP, BBP, DEHP, DINP, DHEXP / DnHP, DCHP, DIBP, DPENP)**

Test Method: CPSC-CH-C1001-09.4(Modified), In-House Method

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		19+20+22	21+24+27	23+25+26	28+29+31	Limit (mg/kg)
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	1000
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND	ND	ND	ND	1000
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	ND	ND	ND	1000
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	ND	ND	1000
Di-n-pentyl phthalate (DPENP)	131-18-0	ND	ND	ND	ND	1000
<b>Conclusion</b>		PASS	PASS	PASS	PASS	

**Note:**

mg/kg = Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.





**DETAILED RESULTS:****CPSC 16 CFR 1307 Prohibition of Children's Toys and Child Care Articles Containing Specified Phthalates (DBP, BBP, DEHP, DINP, DHEXP / DnHP, DCHP, DIBP, DPENP)**

Test Method: CPSC-CH-C1001-09.4(Modified), In-House Method

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.	30	---	---	---	Limit (mg/kg)	
Test Item	CAS No.	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	Result (mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	---	---	---	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	---	---	---	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	---	---	---	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	---	---	---	1000
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND	---	---	---	1000
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	---	---	---	1000
Diisobutyl phthalate (DIBP)	84-69-5	ND	---	---	---	1000
Di-n-pentyl phthalate (DPENP)	131-18-0	ND	---	---	---	1000
<b>Conclusion</b>		PASS	---	---	---	

**Note:**

mg/kg = Milligrams per kilogram

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)



**DETAILED RESULTS:****Client's Requirement, Phthalates content**

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		1	2+3+6	4+15+18	5	Limit ( mg/kg)
Test Item	CAS No.	Result ( mg/kg)	Result ( mg/kg)	Result ( mg/kg)	Result ( mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	289	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	ND	1000
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND	ND	ND	ND	1000
Di-n-octyl phthalate (DNOP)	117-84-0	ND	ND	ND	ND	1000
Diethyl phthalate (DEP)	84-66-2	ND	ND	ND	ND	1000
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	ND	ND	1000
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	ND	ND	ND	1000
Di-n-pentyl phthalate (DPENP/DnPP)	131-18-0	ND	ND	ND	ND	1000
<b>Conclusion</b>		PASS	PASS	PASS	PASS	

**Note:**

mg/kg (Milligrams per kilogram) = 0.0001 % m/m (Percent by mass)

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

**Remark:**

The specification is quoted from client's requirement.



**DETAILED RESULTS:****Client's Requirement, Phthalates content**

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		7	8+11+13	12	14+16+17	Limit ( mg/kg)
Test Item	CAS No.	Result ( mg/kg)	Result ( mg/kg)	Result ( mg/kg)	Result ( mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	ND	1000
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND	ND	ND	ND	1000
Di-n-octyl phthalate (DNOP)	117-84-0	ND	ND	ND	ND	1000
Diethyl phthalate (DEP)	84-66-2	ND	ND	ND	ND	1000
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	ND	ND	1000
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	ND	ND	ND	1000
Di-n-pentyl phthalate (DPENP/DnPP)	131-18-0	ND	ND	ND	ND	1000
<b>Conclusion</b>		PASS	PASS	PASS	PASS	

**Note:**

mg/kg (Milligrams per kilogram) = 0.0001 % m/m (Percent by mass)

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

**Remark:**

The specification is quoted from client's requirement.



**DETAILED RESULTS:****Client's Requirement, Phthalates content**

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		19+20+22	21+24+27	23+25+26	28+29+31	Limit ( mg/kg)
Test Item	CAS No.	Result ( mg/kg)	Result ( mg/kg)	Result ( mg/kg)	Result ( mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	ND	ND	ND	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	ND	ND	ND	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	ND	ND	ND	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	ND	ND	ND	1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	ND	ND	ND	1000
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND	ND	ND	ND	1000
Di-n-octyl phthalate (DNOP)	117-84-0	ND	ND	ND	ND	1000
Diethyl phthalate (DEP)	84-66-2	ND	ND	ND	ND	1000
Diisobutyl phthalate (DIBP)	84-69-5	ND	ND	ND	ND	1000
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	ND	ND	ND	1000
Di-n-pentyl phthalate (DPENP/DnPP)	131-18-0	ND	ND	ND	ND	1000
<b>Conclusion</b>		PASS	PASS	PASS	PASS	

**Note:**

mg/kg (Milligrams per kilogram) = 0.0001 % m/m (Percent by mass)

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

Composite results are based on specimen of least mass resulting in highest potential concentration.

**Remark:**

The specification is quoted from client's requirement.



**DETAILED RESULTS:****Client's Requirement, Phthalates content**

Test Method: CPSC-CH-C1001-09.4

Analytical Method: Gas Chromatography with Mass Spectrometry

Specimen No.		30	---	---	---	Limit ( mg/kg)
Test Item	CAS No.	Result ( mg/kg)	Result ( mg/kg)	Result ( mg/kg)	Result ( mg/kg)	
Dibutyl phthalate (DBP)	84-74-2	ND	---	---	---	1000
Benzyl butyl phthalate (BBP)	85-68-7	ND	---	---	---	1000
Di-(2-ethylhexyl) phthalate (DEHP)	117-81-7	ND	---	---	---	1000
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	ND	---	---	---	1000
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	ND	---	---	---	1000
Di-n-hexyl phthalate (DHEXP / DnHP)	84-75-3	ND	---	---	---	1000
Di-n-octyl phthalate (DNOP)	117-84-0	ND	---	---	---	1000
Diethyl phthalate (DEP)	84-66-2	ND	---	---	---	1000
Diisobutyl phthalate (DIBP)	84-69-5	ND	---	---	---	1000
Dicyclohexyl phthalate (DCHP)	84-61-7	ND	---	---	---	1000
Di-n-pentyl phthalate (DPENP/DnPP)	131-18-0	ND	---	---	---	1000
<b>Conclusion</b>		PASS	---	---	---	

**Note:**

mg/kg (Milligrams per kilogram) = 0.0001 % m/m (Percent by mass)

LT = Less than

ND = Not detected (Reporting Limit = 150 mg/kg)

**Remark:**

The specification is quoted from client's requirement.





**SPECIMEN DESCRIPTION:**

Specimen No.	Specimen Description	Location
1	Silvery coating	Barrel (orange style)
2	Black plastic	Barrel (orange style)
3	Orange plastic	Clip (orange style)
4	Black/orange soft plastic	Tip (orange style)
5	Silvery plated grey plastic	Tip (orange style)
6	Orange translucent plastic	Highlighter cap (orange style)
7	Fluorescent yellow fiber	Highlighter nib (orange style)
8	Transparent plastic	Highlighter cover (orange style)
9	Silvery metal	Spring (orange style)
10	Silvery metal	Nib (orange style)
11	Grey plastic	Cartridge (all styles)
12	Black ink	Cartridge (all styles)
13	White plastic	Gear (all styles)
14	Green plastic	Clip (green style)
15	Black/green soft plastic	Tip (green style)
16	Green translucent plastic	Highlighter cap (green style)
17	Blue plastic	Clip (blue style)
18	Black/blue soft plastic	Tip (blue style)
19	Blue translucent plastic	Highlighter cap (blue style)
20	Grey plastic	Clip (grey style)
21	Black/grey soft plastic	Tip (grey style)
22	Grey translucent plastic	Highlighter cap (grey style)
23	Dull red plastic	Clip (dull red style)
24	Black/dull red soft plastic	Tip (dull red style)





**SPECIMEN DESCRIPTION:**

Specimen No.	Specimen Description	Location
25	Dull red translucent plastic	Highlighter cap (dull red style)
26	Pink plastic	Clip (pink style)
27	Black/pink soft plastic	Tip (pink style)
28	Pink translucent plastic	Highlighter cap (pink style)
29	Black plastic	Clip (black style)
30	Black soft plastic	Tip (black style)
31	Black translucent plastic	Highlighter cap (black style)





**SAMPLE PHOTO:**



-End Report-

